DOCUMENT RESUME

ED 028 998 24 SP 002 632

By-Ramirez, Judith Valla

Teacher Behavior in Role-Playing: A Study in Interaction Analysis. Research and Development Memorandum No. 43.

Stanford Univ., Calif. Stanford Center for Research and Development in Teaching.
Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.
Bureau No-BR-5-0252-43
Pub Date Feb 69
Contract-OEC-6-10-078
Note-13p.
EDRS Price MF-$0.25 HC-$0.75
Descriptors-Grade 6, Research Needs, *Role Playing, Student Teacher Relationship, *Teacher Behavior

An analysis of the teacher behaviors conducive to successful student role-playing was made. Four teachers experienced in role-playing participated in 10 video-taped role-playing sessions with sixth grade students. Using the Flanders system, an overall interaction matrix was constructed based on data gathered from three of the 10 sessions. Also, to test for significant differences among four sequential teacher role-playing functions (derived from a grouping of teacher behaviors), separate interaction matrices were formed for each: Teacher-dominated interaction to acquaint the students with the problem (warm-up), balanced student teacher interaction as the problem is explored (discussion), student-dominated interaction in role assumption and problemsolving (role-playing), and balanced interaction in reviewing major ideas derived from the session (summary). For control purposes, similar student-teacher interaction matrices from a previous study were obtained and contrasted with the overall and the role-playing function matrices. Results of analyses showed significant differences between the four role-playing functions, and in student teacher interaction between the conventional classes and the role-playing classes when analyzed for role-playing function. However, no significant overall differences in interaction were found between the two types of classes. (SM)

ED028998

BR 5-0252
R+D MEMO No 4
PA-24
OE/BR

STANFORD CENTER
FOR RESEARCH AND DEVELOPMENT
IN TEACHING

Research and Development Memorandum No. 43

TEACHER BEHAVIOR IN ROLE-PLAYING: A STUDY IN INTERACTION ANALYSIS

Judith Valla Ramirez

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

School of Education
Stanford University
Stanford, California

February 1969

Published by the Stanford Center for Research and Development in Teaching, supported in part as a research and development center by funds from the United States Office of Education, Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect the position or policy of the Office of Education, and no official endorsement by the Office of Education should be inferred (Contract No. OE-6-10-078, Project No. 5-0252-0105).

SP002632

FOREWORD

Research that examines teacher behavior as related to a specific task or sequence of tasks can enrich our knowledge about how to train teachers. The ability to record and preserve teacher behavior on videotape has opened a wide variety of research opportunities for examining instructional strategies and their effects on students. By guiding students through the complexities of examining their own behavior, the teacher can develop a series of individually elaborated principles for determining intelligent action. Intelligent action, as defined by Dewey, is a process whereby the individual continuously evaluates his experience in terms of what he means to do and the consequences he actually experiences.

As an inquiry process, role-playing requires of the teacher skills that have not been involved in conventional modes of teaching. Essentially a heuristic mode, role-playing requires a classroom climate in which it is "safe" for students to take risks. The teacher must know when and how to (a) structure the role-playing situation; (b) be nondirective; (c) facilitate the flow of student ideas; and (d) mediate group ideas. Such procedures demand skills in asking open-ended questions, listening for meanings, and asking clarifying questions, as well as knowing in what sequence the procedures should occur.

The present research was designed to develop ways of facilitating the use of role-playing in the classroom; it was an attempt to conduct a task analysis of the logical behaviors that a teacher must, of necessity, display while using role-playing. These behaviors are viewed as a process embodying a logical sequence of potential learning activities. Additional inquiry is needed into the behaviors required by the nature of a teaching act, behaviors that can be readily observed and that occur in predictable sequences. The experience and findings of this study will be of substantial benefit in carrying out the next steps in examining role-playing as an instructional treatment.

The author of this paper is a doctoral candidate in elementary education in the Stanford University School of Education and a Research Assistant in the Stanford Center for Research and Development in Teaching.

R. H. Koff and Fannie R. Shaftel

TEACHER BEHAVIOR IN ROLE-PLAYING: A STUDY IN INTERACTION ANALYSIS[1]

Judith Valla Ramirez

Historically, educational research has viewed the act of teaching as a unitary phenomenon: the application of reliable rules and principles to achieve desired behavioral outcomes. Recently, there have been several attempts to elaborate models for teaching that would make the findings of educational psychology more relevant. One implication of these recent approaches is the view that teaching is a multifaceted process comprised of numerous micro-components. Thus, the educator who wants to understand the act of teaching may examine it in terms of "microcriteria" (Gage, 1963). The present study involves an analysis of the differentiated teacher behaviors required in role-playing -- a technique that has been widely used in education (Shaftel & Shaftel, 1967), industry (Maier, 1952), and psychotherapy (Moreno, 1946).

Recent educational research has viewed role-playing as an educational treatment (Lippitt, Lippitt, & Fox, 1964), a teacher-training technique (Cook & Tregawlyn, 1948), and a means for improving the social atmosphere of the classroom (Souerwine & Conway, 1953). In addition, role-playing has become one of the many alternatives available to the teacher for involving students in problem-solving (Shaftel & Shaftel, 1967).

For the purposes of the present study, role-playing is defined as a technique by which a group of students spontaneously act out interpersonal problems and then analyze their enactments with the help of the class and the teacher. This technique achieves three major objectives: (a) it allows the student to develop and practice skills in integrating problem-solving processes, i.e.,

---

[1]An earlier version of this paper was presented at the American Psychological Association meeting in San Francisco, August 30, 1968. The author wishes to acknowledge the assistance provided by observers Karen R. Singer, Emilie Valla, and Diane Feldman; and also by staff assistants Claire Kohrman and Patricia Brown.

problem identification, generation of alternative means of problem-solving, setting priorities among alternative solutions, and projecting the consequences of using a given alternative; (b) it sensitizes the role-player to the feelings of others by putting him in another's role; and (c) it creates a spontaneous history of common experience and dialogue which serves as a basis for initiating, maintaining, and evaluating natural inquiry in the classroom.

The purpose of the present research was to develop descriptions of four teacher role-playing functions thought to contribute to successful role-playing enactments and to examine the extent to which these functions require significantly different teacher behaviors.

Method

Four teachers experienced in role-playing were randomly assigned to four sixth-grade classrooms in a middle-class school district near a large metropolitan area. Audio recordings were made of ten role-playing sessions in each of the four classrooms. Teacher-student dialogue from the first, fifth, and tenth role-playing sessions, totaling twelve hours of observation, was tabulated into matrices by three observers trained to use the Flanders Interaction Analysis system. The matrices showed the frequency of teacher-student interaction in each of the ten Flanders categories (Flanders, 1964, p. 6). Average interrater reliability was .84.

Role-playing as a process requires a complex series of teacher behaviors. For the purpose of this study, teacher behaviors were grouped according to four teacher role-playing functions. These functions may be described as follows:

1. Warm-up: interaction is dominated by the teacher in order to acquaint the group with and involve them in the problem.
2. Discussion: interaction is more evenly balanced as the teacher guides students to explore the problem situation.
3. Role-playing: interaction is dominated by the students as they assume roles and spontaneously react in testing out solutions.

4. Summary: interaction is once again more balanced with both teacher and students actively involved in reviewing and summarizing major ideas brought out during the session.

In order to test the hypothesis that the four teacher role-playing functions required significantly different teacher behaviors, separate matrices were constructed for each role-playing function. These matrices were then compared for the frequency of teacher-student interaction in each of the Flanders categories.

In addition, in order to compare teacher behavior during role-playing with teacher behavior during regular social studies classes, similar matrices of teacher-student interaction were obtained from a study by Turner (1966). These "control" matrices, based on 96 hours of observation in 21 classrooms, were contrasted with the role-playing matrices by means of Darwin's likelihood ratio.

Results

Table 1 shows that the teacher behaviors required to fulfill role-playing functions (warm-up, discussion, role-playing, and summary) were significantly different from one another. Table 2 summarizes role-playing results for the categories of teacher talk, student talk, and silence or confusion. These two tables indicate that teacher behavior changed significantly according to role-playing function. Teacher talk dominated the warm-up, then decreased when teacher and students discussed the problem. Student talk strongly dominated role-playing enactments, while teacher-student participation was nearly equal during summary of the enactment.

Table 1 also shows that teacher-student interaction during role-playing, when examined in relation to specific teacher functions, differed significantly from teacher-student interaction in conventional social studies classes. Lecturing (category 5), for example, comprised 28 percent of the interaction of conventional social studies classes and 22 percent of the overall interaction of role-playing sessions-a difference of only 6 percent. However, within role-

playing sessions, lecturing varied from 52 percent during warm-up to a mere 2 percent during actual role-playing - a difference of 50 percent that is significant at the .005 level of confidence (see footnote, Table 2). In summary, observations showed that there were significant differences in teacher-student interaction within role-playing classes as compared to teacher-student interaction in conventional social studies classes for nine of the Flanders categories.

Table 1 also shows that teacher behavior during role-playing classes, when not analyzed for role-playing function, did not differ significantly from teacher behavior in conventional social studies classes. The percentage of interaction in each of the Flanders categories averaged over the entire role-playing session was quite similar to that of the conventional classes. It is interesting to note, however, that there was considerably more student-initiated talk in role-playing classes than there was in conventional social studies classes.

Four indices which are often used when comparing classes of different types using the Flanders Interaction Analysis system are: teacher talk, student talk, steady state, and the ratio of indirect to indirect-plus-direct teacher influence. These indices, which are given in Table 3 for role-playing and conventional social studies classes, revealed no significant overall differences between the two types of classes. However, it must be remembered that comparisons between conventional social studies classes and the specific role-playing phases of role-playing classes yielded significant differences ($p < .005$) for nine of the Flanders categories. Therefore, these highly significant differences would emerge again if these matrices were compared on the variables of teacher talk, student talk, steady state, and the ratio of indirect to indirect-plus-direct teacher influence.

Discussion

The results of this study showed that the frequencies of teacher behaviors required to fulfill role-playing functions (warm-up, discussion, role-playing, summary) were significantly different from one another; and, more importantly, that teacher-student interaction during role-playing, when examined in relation to specific teacher functions, differed significantly from teacher-student interaction in conventional social studies classes. However, when teacher-student interaction was not viewed in terms of microcriteria, it did not differ significantly from teacher-student interaction in conventional social studies classes. Thus the application of a microcriteria approach to analysis of the teaching act during role-playing has yielded results that show that teacher behavior changes significantly according to the requirements of the task.

The findings of the present study also indicate that interaction analysis can serve as a useful technique for diagnosing and evaluating teacher behavior - especially when teacher behavior is viewed in terms of task requirements.

Traditionally, role-playing research has focused on the teacher as a dependent variable: How does the teacher's behavior change as a function of training? What are the personality correlates of teachers who are effective in the art of conducting role-playing? This research should continue, but the results of the present study indicate the necessity of conducting research that focuses on the effects of role-playing on the student. This approach poses several practical research questions which may be summarized as follows:

1. Do the phases of warm-up, discussion, role-playing, and summary, which collectively comprise role-playing teacher functions, contribute to increased skill in student problem-solving ability?
2. Do role-playing experiences sensitize students to the feelings and problems of others?
3. Does manipulation of one or more teacher role-playing function produce differential student growth?

Another approach to examining role-playing and its effects on students is exemplified by the aptitude-treatment interaction conception outlined by Cronbach (1957). The grand objective of this approach is to determine what personal characteristics cause a student to respond better to one instructional procedure than to another.

The findings of the present study also indicate that interaction analysis can serve as a useful technique for diagnosing and evaluating teacher behavior - especially when teacher behavior is viewed in terms of task requirements.

Finally, role-playing has been traditionally viewed, and appropriately so, as essentially a heuristic mode of instruction. The findings of the present study, however, show that teacher behavior may be classified as either heuristic or didactic, depending upon the nature of the task. For example, during role-playing there are many times when the task requires the teacher to be directive - as in the first phases where the teacher must "set the stage" (Shaftel & Shaftel, 1967). There are other times when the teacher must step back and let students dominate interaction - as in actual role-playing. Thus, even though role-playing may be an essentially heuristic technique, teacher behavior may be either nondirective or directive, depending upon task requirements. Future research should examine the link between directive versus nondirective requirements for teacher behavior, their effects on students, and their implications for teacher training.

Summary

This study investigated teacher behaviors during role-playing. The major purpose was to examine the extent to which four teacher role-playing functions (warm-up, discussion, role-playing, and summary) required significantly different teacher behaviors. A secondary concern was an analysis of the degree to which teacher behavior in role-playing classes differed from teacher behavior in conventional social studies classes.

Results indicated that teacher behaviors related to the specific teacher role-playing functions are significantly different from one another. In addition, results showed that teacher-student interaction during role-playing, when examined in relation to the specific teacher functions, differed significantly from teacher-student interaction in conventional social studies classes. However, teacher-student interaction averaged over entire role-playing sessions did not differ significantly from that of conventional social studies classes.

Results indicated that teacher behaviors related to the specific teacher role-playing functions are significantly different from one another. In addition, results showed that teacher-student interaction during role-playing, when examined in relation to the specific teacher functions, differed significantly from teacher-student interaction in conventional social studies classes. However, teacher-student interaction averaged over entire role-playing sessions did not differ significantly from that of conventional social studies classes.

The results of the study were discussed in terms of their implications for future research and teacher training.

References

Cook, M. & Tregawlyn, J. Instructions to teachers from a unit: An intercultural action technique for the secondary school. Sociatry, 1948, 2, 281-283.

Cronbach, L. J. The two disciplines of scientific psychology. American Psychologist, 1957, 12, 671-684.

Flanders, N. A. Interaction analysis in the classroom: A manual for observers. (Rev. ed.). Ann Arbor, Mich.: School of Education, University of Michigan, 1964.

Gage, N. (ed.). Handbook of research on teaching. Chicago: Rand McNally, 1963.

Lippitt, R., Lippitt, P., & Fox, R. Children look at their own behavior. N.E.A. Journal, 1964, 53, 14-16.

Maier, N. R. F. Principles of human relations: Applications to management. New York: Wiley, 1952.

Moreno, J. L. Psychodrama. New York: Beacon House, 1946.

Shaftel, F. & Shaftel, G. Role-playing for social values: Decision-making in the social studies. Englewood-Cliffs, Prentice-Hall, 1967.

Souerwine, A. A. & Conway, K. L The effects of role-playing upon the social atmosphere of a small group of sixth grade children. Paper read at the meeting of the American Psychological Association, 1953.

Turner, B. P. A study of leadership style: Interaction analysis of an inquiry-oriented human relations course and subject-oriented social studies classrooms. Unpublished master's thesis, University of Chicago, 1966.

TABLE 1

Average Percent of Teacher-Pupil Interaction in Each Interaction Analysis Category for Social Studies and Role-Playing Classes

		Interaction Analysis Categories									
		1 Accepts Feelings	2 Praises or Encour-ages	3 Accepts or Uses Ideas of Student	4 Asks Questions	5 Lectures	6 Gives Directions	7 Criti-cizes	8 Student Talk: Response	9 Student Talk: Initia-tion	10 Silence or Confu-sion
Type of Class	Social Studies[a]	0.54	1.20	6.80	9.97	28.20	5.40	2.30	21.30	13.40	11.20
	Role-Playing[b]	0.76	0.85	3.30	9.43	22.07	1.27	0.85	3.52	36.84	17.04
Teacher Role-Playing Function	Warm-Up	2.62	0.54	0.69	11.88	52.07	0.32	2.14	2.78	9.70	17.26
	Discussion	0.19	0.64	5.14	15.25	13.54	3.62	0.49	5.29	35.97	19.88
	Role-Playing	0.00	0.12	0.22	1.24	2.01	0.23	0.52	3.28	70.21	22.44
	Summary	0.24	0.44	2.02	9.46	22.54	1.39	1.05	3.78	36.63	19.86

[a] Based on 12 hours of observation in 4 classrooms.

[b] Based on 96 hours of observation in 21 classrooms.

Note: Percent of interaction in each category for each of four teacher role-playing functions significantly different ($p < .05$) from percent of interaction in each category for social studies classes. Percent of interaction in categories 1-9 significantly different ($p < .005$) for each teacher role-playing function.

TABLE 2

Average Percent of Teacher-Pupil Interaction Related to the Four Teacher Role-Playing Functions, Grouped According to Summary Categories - Teacher Talk, Student Talk, and Silence or Confusion

	Teacher Talk	Student Talk	Silence or Confusion
Warm-Up *	70.26	12.48	17.26
Discussion	38.87	41.26	19.88
Role-Playing	4.34	73.49	22.44
Summary	37.17	42.41	19.86

Note: Based on 12 hours of observation in four classrooms.

*Teacher talk vs. student talk differences significant at $p < .005$.

TABLE 3

Average Percent of Teacher Talk, Student Talk, Steady State, and Indirect-to-Direct Ratio for Role-Playing and Conventional Social Studies Classes.

Type of Class	Teacher Talk	Student Talk	Steady State	Ind./Ind. + Direct[c]
Role-Playing[a]	37.66	42.41	53.27	28.31
Social Studies[b]	54.36	34.70	51.48	34.07

[a] Based on 12 hours of observations in 4 classrooms.

[b] Based on 96 hours of observations in 21 classrooms.

[c] Ratio expressed as a percent.